

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau(43) International Publication Date
30 October 2003 (30.10.2003)

PCT

(10) International Publication Number
WO 03/090471 A1(51) International Patent Classification⁷: H04N 7/26,
G06T 9/00, G01S 7/52

(21) International Application Number: PCT/GB03/01545

(22) International Filing Date: 9 April 2003 (09.04.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0208972.0 19 April 2002 (19.04.2002) GB
0219816.6 27 August 2002 (27.08.2002) GB

(71) Applicant (for all designated States except US): QINETIQ LIMITED [GB/GB]; Registered Office, 85 Buckingham Gate, London SW1E 6PD (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): DUCKSBURY, Paul, Gerard [GB/GB]; Qinetiq Malvern Technology Centre, E Building Room 311, St Andrews Road,

Malvern, Worcs WR14 3PS (GB). VARGA, Margaret, Jai [GB/GB]; Qinetiq Malvern Technology Centre, E Building Room 302, St Andrews Road, Malvern, Worcs WR14 3PS (GB).

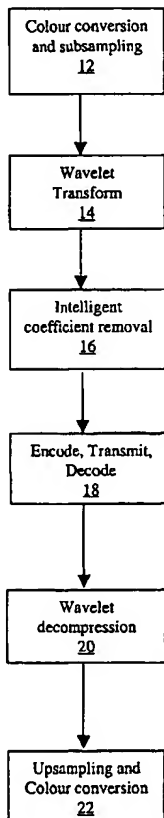
(74) Agent: WILLIAMS, A., W., S.; IP Qinetiq Formalities, Cody Technology Park, A4 Building Room G016, Ively Road, Farnborough, Hampshire GU14 0LX (GB).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

[Continued on next page]

(54) Title: DATA COMPRESSION FOR COLOUR IMAGES USING WAVELET TRANSFORM



(57) Abstract: The invention describes a wavelet compression method for colour converted image planes (Y, Cb and Cr), wherein a relatively low (e.g. zero) degree of compression is performed in areas of an original colour image having relatively higher importance, and a relatively higher degree of compression in those areas indicated to be of lower importance. It performs a hierarchical encoding of a reduced wavelet image by discarding wavelet coefficients which satisfy the two criteria of firstly corresponding to image areas of relatively lower importance and secondly being below a certain wavelet coefficient threshold. The wavelet coefficient threshold is determined from a calculation of cumulative histogram to remove a percentage of the image and can be specified as an input parameter by a user.

WO 03/090471 A1



European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— *with international search report*

Declaration under Rule 4.17:

— *of inventorship (Rule 4.17(iv)) for US only*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.